



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

1650 Arch Street

Philadelphia, Pennsylvania 19103-2029

June 27, 2004

Jeff Trulick
Planning Division
U. S. Army Corps of Engineers
P.O. Box 1715
Baltimore, MD 21203

RE: Draft Integrated Feasibility Report and Environmental Impact Statement Flood Damage Reduction Project Bloomsburg, PA, April 2005

Dear Mr. Trulick:

In accordance with the National Environmental Policy Act (NEPA) of 1969 and Section 309 of the Clean Air Act, the Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above referenced project.

The purpose of this DEIS is to evaluate alternative plans to reduce flood damages in Bloomsburg along Fishing Creek and the Susquehanna River. Past flood events have resulted in extensive damages to structures and their contents and have threatened public safety. Extensive portions of Bloomsburg are within the 500-year floodplain of the Susquehanna River and Fishing Creek. The 500-year floodplain includes approximately 525 residential structures, and 75 businesses and local government buildings.

The recommended flood damage reduction plan is to provide hurricane Agnes (440-year) level protection from Susquehanna River flooding and 100-year level of protection from Fishing Creek Flooding. The recommended plan consists of 16,555 linear feet of levee/floodwall systems with fourteen drainage structures and nine closure structures, six of which incorporate limited road raising. The alignment of the line of protection was refined based on physical, environmental, and economic criteria.

The proposal consists of a system of earthen levees, mechanically stabilized earth floodwalls, concrete floodwalls, railroad and road closure structures and roadway relocations to provide ramps over the line of protection. Limited riprap will be used to protect steep banks along the lower reaches of Fishing Creek.

Based on our review of the DEIS, EPA has rated the environmental impacts of the preferred Alternative as “EC” (Environmental Concerns) and the adequacy of the impact statement as “2” (Insufficient). The basis for these ratings and a copy of the rating criteria are contained in the attachment to this letter. Thank you for the opportunity to offer these comments. If you have any questions, please contact Barb Okorn at (215)814-3330.

Sincerely,

/s/

William Arguto
NEPA Team Leader

enclosures

EPA Supporting Comments
Flood Damage Reduction Project Bloomsburg DEIS:

Please include details of the wetlands. The report references field investigations, but details are not provided in the DIES. The maps should indicate the wetland types.

The most recent state and federal threatened and endangered species coordination letters should be included in the EA. In addition, we recommend that the appropriate state and federal agencies be contacted annually at a minimum regarding these issues.

The Corps should coordinate all activities with the PA Historical and Museum Commission.

Page 2-17 states that “ The areas within Bloomsburg with the highest concentration of persons below the poverty level would not be within the potential project area and there would be no disproportionate effect to low-income populations.” This statement should be clarified. What is the definition of “highest concentration”. It is important that environmental justice issues are fully evaluated in the DEIS.

Page 3-31 states that “..it is highly unlikely that a floodplain buyout plan would meet present Federal National Economic Development policy for a finding of Federal interest. This is due primarily to insufficient benefit-cost ratios under mandated economic analysis procedures. As a consequence, Federal funding of all or part of a buyout would appear remote.” More information should be provided to explain this statement. It is unclear to the reader why it is “highly unlikely” and why it would “appear remote”. Part of fully evaluating alternatives should provide definitive statements.

Page 3-32 discusses flood warning systems and states that while they would increase awareness, they would not decrease damages, so they were not considered as a stand alone alternative. These systems should be a part of the selected alternative to increase public safety.

Page 4-14 discusses utility relocations. It is unclear if environmental impacts associated with these relocations are considered. Also, a more detailed explanation of the roadway relocations should be provided (i.e. would pavement be left in place, etc.)

The Corps should work closely with the appropriate agencies to avoid and minimize erosion and construction impacts. Areas of disturbance should be revegetated as soon as possible with native vegetation.

Page 5-7 should discuss the types of wetlands impacted and clearly depict them on a map. It is unclear if the 2.0 acres of forested wetlands that will be impacted will be minimized for only alternative 4 or all of the alternatives.

Page 5-33 indicates that mitigation for aquatic and riparian impacts will be restoring fish

passage to lower Fishing Creek. It appears that there may be problems with removing the dam, but no other alternative mitigation concepts are discussed. Also, one of the potential impacts to the aquatic environment mentioned in the DEIS, is an increase in water temperature due to impacts to riparian vegetation. There is no discussion on how this may impact the fish passage.

More details should be provided on the potential wetland mitigation site and the COE should work with the appropriate state and federal agencies to develop an acceptable mitigation package to address aquatic, wetland and terrestrial environmental impacts.

It doesn't appear that PA Game Commission received a copy of this document. They should be given an opportunity to review it for state species of concern.

The following comments are for your consideration to minimize impacts caused by construction:

Air Resources

In an effort to eliminate impacts to air quality, the Corps should control or minimize construction emissions through use of the following typical Best Management Practice (BMPs) in association with each proposed project involving on-site construction:

- Utilize appropriate dust suppression methods during on-site construction activities. Available methods include application of water, soil stabilizers, or vegetation; use of enclosures, covers, silt fences, or wheel washers; and suspension of earth-movement activities during high wind conditions;
- Maintain a speed of less than 15 mph with construction equipment on unpaved surfaces as well as utilize fuel with lower sulfur content;
- Employ a construction management plan in order to minimize interference with regular motor vehicle traffic;
- Use electricity from power poles instead of generators whenever possible;
- Repair and service construction equipment according to the regular maintenance schedule recommended for each individual equipment type;
- Use low-VOC architectural materials and supplies equipment; and
- Incorporate energy-efficient supplies whenever feasible.

SmartWay Transport

Please consider incorporating any SmartWay initiatives that can be integrated into this project or general facility operating procedures, especially some of the idling best management practices. This effort has the potential to reduce pollution emissions as noted in the brief smart

way description provided below.

SmartWay Transport is a voluntary partnership between various freight industry sectors and EPA that establishes incentives for fuel efficiency improvements and greenhouse gas emissions reductions. By 2012, this initiative aims to reduce between 33-66 million metric tons of carbon dioxide (CO₂) emissions and up to 200,000 tons of nitrogen oxide (Nox) emissions per year. At the same time, the initiative will result in fuel savings of up to 150 million barrels of oil annually. There are three primary components of the project: creating partnerships, reducing all unnecessary engine idling, and increasing the efficiency and use of rail and intermodal operations.

One component of the SmartWay Transport Partnership is to eliminate unnecessary truck and rail idling by developing a nationwide network of idle-reduction options along major transportation corridors - truck stops, travel centers, distribution hubs, rail switch yards, borders, ports, and even along the side of the road. The Environmental Protection Agency is working with the trucking industry, manufacturers of idle control technologies, various states, and other partners to help save fuel and reduce air pollution from idling trucks. EPA is conducting emissions testing on idling trucks under various conditions, surveying trucking fleets to learn more about idling times, implementing demonstration projects to test idle control technologies, and holding workshops to educate affected communities.

The vast majority of fuel consumed during long-duration idling can be saved and air emissions reduced by installing one of several idle control technologies that provide heat, air conditioning, and electrical power. These technologies include auxiliary units and truck stop electrification. The technologies to address engine idling are evolving, and EPA plans to test new technologies as they come to the market. You can find a list of the currently available idle technologies at <http://www.epa.gov/otaq/retrofit/idlingtech.htm>.

Noise

Noise mitigation measures should be implemented during renovation, demolition and/or construction. These measures may include:

- maintenance of construction equipment and installation of mufflers to reduce noise;
- time of day restrictions on construction and maintenance activities to eliminate noise during those times of day when it is considered to be most objectionable; and
- timing of demolition and/or construction activities to avoid primary breeding and nesting seasons of avian and other affected species.

Surface Water Resources

- time of year restrictions on construction to accommodate aquatic life cycles and

recreation activities;

- disposal of construction debris at an approved upland site to reduce the risk of contamination to surface water; and
- use of barriers and depressions to slow and impound precipitation and trap sediment.

The area should be revegetated immediately after construction with native vegetation or non-invasive species. Vegetated swales, treatment systems and other stormwater management controls should be implemented as necessary.

Low Impact Development

A Presidential Memorandum (dated April 26, 1994) and Guidance (dated August 10, 1995) applicable to Federal facilities and federally funded projects pertinent to environmentally and economically beneficial landscape practices is to be incorporated into all NEPA-related documents. As outlined in Executive Order 13148 dated April 26, 2000 (Federal Register Vol. 65, No. 81) on Greening the Government, it has been directed that all agencies incorporate the above Guidance into landscape programs, policies and practices. The Guidance calls for agencies that fund any landscape to provide recipients with information of beneficial landscaping as well as to work to support and encourage application of the principles. The EPA, GSA, and USDA are tasked with providing technical information on beneficial landscaping to other federal agencies and their facilities. This effort, also recognized as low impact development, has the potential to reduce impacts on watershed hydrology and aquatic resources as described below.

Low impact development, or LID, is a natural approach to land development and stormwater management designed to reduce impacts on watershed hydrology and aquatic resources. It is important to incorporate LID efforts to mitigate the effects of development through traditional stormwater management practices which have proven to not be entirely successful. Traditional collection and conveyance systems, stormwater ponds and other stormwater facilities do not replicate natural systems, which greatly slow water before it reaches streams, wetlands and other waters. Development often times results in the loss of trees and other vegetation, the compaction of soils by heavy equipment, and the creation of vast stretches of connected impervious areas. These combined factors are extremely difficult to compensate for using traditional practices. Prior to the development of any structural stormwater practices on a site, significant reductions in stormwater quantity and quality impacts can be made through enhancements to site design. As a result, the following site design goals and planning practices can be used to minimize stormwater impacts.

* Design Goal: Minimize direct stormwater impacts to streams and wetlands to the maximum extent practicable. Practices: 1. Locate stormwater facilities outside of streams and wetlands; 2. maintain natural drainage routes on site; 3. preserve riparian buffers; and 4. distribute "Integrated Management Practices (IMPs)" used in lieu of centralized ponds.

* Design Goal: Preserve the natural cover on as much of the site as possible, especially

for areas located on hydrologic soil groups (HSG) A and B. Practices: 1. Utilize clustered development designs that preserve a significant portion of the site in a natural state; 2. utilize “fingerprint” clearing by limiting the clearing and grading of forests and native vegetation to the minimum area needed for the construction of the lots, the provision of necessary access, and fire protection; 3. avoid impacts to wetlands or vegetated riparian buffers; and a4. Preserve A & B soils in natural cover.

* Design Goal: Minimize the overall impervious cover. Practice: 1. Utilize the minimum required width for streets and roads; 2. utilize street layouts that reduce the number of homes per unit length; 3. minimize cul-de-sac diameters, use doughnut cul-de-sacs, or use alternative turnarounds; 4. minimize excess parking space construction, utilize pervious pavers in low-use parking areas; 5. utilize structured or shared parking; 6. reduce home setbacks and frontages; 7. where permitted, minimize sidewalk construction by utilizing sidewalks on one side only, utilizing “skinny” sidewalks, or substituting sidewalks with pervious trails through common greenspace; 8. substitute pervious surfaces for impervious wherever possible; 9. where permitted, avoid the use of curb and gutter and utilize vegetated open swales, preferably “engineered swales” with a permeable soil base; and 10. minimize compaction of the landscape and in areas where soils will become compacted due to construction equipment, specify that the soils will be “disked” prior to seeding, and amended with loam or sand to increase absorption capacity.

* Design Goal: Locate infiltration practices on HSG A and B soils wherever possible. Thus, every effort should be made to utilize areas with these soils for IMPs that promote infiltration.

* Design Goal: Locate impervious areas on less permeable soils (HSG C and D). Placement of impervious areas on lower permeability soils minimizes the potential loss of infiltration/recharge capacity on the site.

* Design Goal: “Disconnect” impervious areas. “Disconnecting” means having impervious cover drain to pervious cover, i.e. downspouts draining to the yard, not the driveway. This decreases both the runoff volume and time of concentration.

* Design Goal: Increase the travel time of water off of the site (time of concentration). Practices: 1. Flatten grades for stormwater conveyance to the minimum sufficient to allow positive drainage; 2. increase the travel time in vegetated swales by using more circuitous flow routes, rougher vegetation in swales, and check dams; and 3. utilize “engineered” swales in lieu of pipes or hardened channels.

* Design Goal: Utilize soil management/enhancement techniques to increase soil absorption. Practices: 1. Delineate soils on site for the preservation of infiltration capacity; and 2. require compacted soils in areas receiving sheetflow runoff (such as yard, downslope of downspouts).

* Design Goal: Revegetate all cleared and graded areas with native and noninvasive

species.

* Design Goal: Utilize level spreading of flow into natural open space.

For additional LID information, please refer to the following web sites.

- LID Manuals:

http://www.epa.gov/owow/nps/lid_hydr.pdf

Borrow and Fill Disposal

Disposal of excess waste or the borrowing of fill for the earthmoving activities of (highway) construction can lead to potential secondary impacts. Efforts should be made to avoid and minimize the impacts of the project on ecologically sensitive areas. It is important that borrow and waste methods not impact those same resources. Even if specific designs have not been developed, to the extent possible, potential staging areas should be identified and their impacts assessed and evaluated.